

### REMARKS

By this amendment, claims 6-62 have been amended. Claims 6-62 are pending in the application. Applicant reserves the right to pursue the original claims and other claims in this and other applications.

Claims 7, 9, 11, 13, 15, 17, 19-23, 25-43, 45, 47, 49, 51, 53, 55, 57, and 59-62 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims have been amended to address the concerns raised in the Office Action. Applicant respectfully requests that the rejection of these claims be withdrawn and the claims allowed.

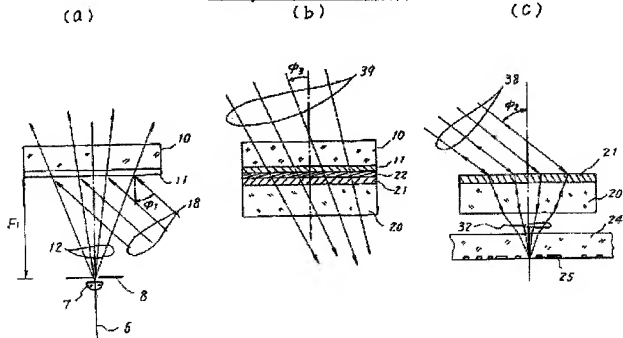
Claims 6-19, 24-25, 46-53, and 58-59 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kuwayama JP (JP 60-035701) in view of Tsuji et al. (US 4,983,017), further in view of Kuwayama et al. (US 4,720,158), and still further in view of Sekine et al. (US 2004/0174579). It should be noted that the Office Action appears to repeat the same rejection on page 6 for claims 6-7, 24-25, 46-53, and 58-59, and both rejections are herein addressed. These rejections are respectfully traversed. None of Kuwayama JP, Tsuji et al., Kuwayama et al., or Sekine et al., even when considered in combination, teaches or suggests all of the limitations of independent claims 6 or 7.

Claim 6 recites, *inter alia*, a “method for duplicating a diffraction grating ..., the diffraction grating comprising a grating part which comprises a plurality of divided areas, at least one of the plurality of divided areas being above at least a second of the plurality of divided areas, configured such that diffracted light exiting from each of the plurality of areas is led to a corresponding particular photo-detecting area of the photodetector”

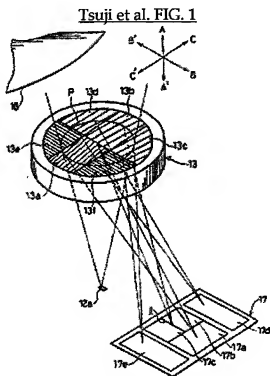
(emphasis added). Claim 7 recites similar limitations. Applicant respectfully submits that Kuwayama JP, Tsuji et al., Kuwayama et al., and Sekine et al., even when combined, fail to teach or suggest these limitations. In fact, the Office Action fails to even assert that the cited references teach or suggest this important aspect of the invention.

To the contrary, Kuwayama JP teaches in FIGs. 4(a)-4(c) (reproduced below) that the only division is in the layers 10, 11, 20, 21, 22. However, the figures also show that each ray of light passing through the various layers of the grating ends up at one location, and is not directed to different areas of a photodetector based on which layer is hit. Applicant respectfully submits that Kuwayama JP does not disclose, teach, or suggest that "a plurality of divided areas ... configured such that diffracted light exiting from each of the plurality of areas is led to a corresponding particular photo-detecting area of the photodetector," as recited in claims 6-7.

Kuwayama JP FIGs. 4(a)-4(c)



Nor does Tsuji et al. teach or suggest these limitations. Rather, Tsuji et al. teaches in FIG. 1 (reproduced below) that the diffraction gratings are disposed next to each other. Applicant respectfully submits that Kuwayama JP does not disclose, teach, or suggest that "a plurality of divided areas, at least one of the plurality of divided areas being above at least a second of the plurality of divided areas," as recited in claims 6-7. Thus, Tsuji et al. does not remedy the deficiencies of Kuwayama JP.



Kuwayama et al. also does not teach or suggest these limitations. Rather, Kuwayama et al. teaches in FIG. 1 that the light passing from layer 10 goes to layer 11, and then out, with no difference in the endpoint. Thus, Kuwayama et al. does not remedy the deficiencies of Kuwayama JP and Tsuji et al.

Nor does Sekine et al. teach or suggest these limitations. Rather, FIG. 11 shows various layers 210, 215, 220 passing light 230 directly through. Thus, Sekine et al. does not remedy the deficiencies of Kuwayama JP, Tsuji et al., and Kuwayama et al.

In addition, the “requisite prior art suggestion to combine becomes less plausible when the necessary elements can only be found in a large number of references. . . .” *Eli Lilly & Co. v. Teva Pharms. USA, Inc.*, 2004 U.S. Dist. LEXIS 14724 at \*104; 2 *Chisum on Patents* § 5.04[1][e][vi]. In the present application, the lack of a reason to combine each of the four references with each of the others, in addition to the sheer number of disparate references applied by the Office Action, is sufficient to overcome the asserted obviousness arguments.

Since Kuwayama JP, Tsuji et al., Kuwayama et al., and Sekine et al. are not combinable and do not teach or suggest all of the limitations of claims 6-7, claims 6-7 are not obvious over the cited combination. Claims 8-19, 24-25, 46-53, and 58-59 depend, respectively, from independent claims 6-7, and are patentable at least for the reasons mentioned above, and on their own merits. Applicant respectfully requests that the 35 U.S.C. § 103(a) rejection of claims 6-19, 24-25, 46-53, and 58-59 be withdrawn and the claims allowed.

Claims 6-25, 46-53, and 58-59 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kuwayama JP in view of Tsuji et al., Kuwayama et al. '158, and Sekine et al., and further in view of Dickson et al., IBM Technical Disclosure Bulletin Vol. 24(4) pp. 1896-1897 (09/1981) (“Dickson et al.”) and/or Kuwayama et al. (US 5,455,691). Claims 6-25, 46-53, and 58-59 are also rejected under 35 U.S.C. § 103(a) as being unpatentable over Kuwayama JP in view of Tsuji et al., Kuwayama et al. '158, and Sekine et al., Dickson et al., and/or Kuwayama et al. '691, and further in view of Sutherland et al. (US 6,730,442). These

rejections are respectfully traversed. As discussed above, none of Kuwayama JP, Tsuji et al., Kuwayama et al. '158, or Sekine et al., even when considered in combination, teaches or suggests all of the limitations of independent claims 6 or 7. Independent claims 20-23 recite similar limitations.

None of Dickson et al., Kuwayama et al. '691, or Sutherland et al. are cited for, nor do they teach, the above-discussed limitations. Therefore, Dickson et al., Kuwayama et al. '691, and Sutherland et al. fail to remedy the above-described deficiencies of Kuwayama JP, Tsuji et al., Kuwayama et al. '158, and Sekine et al.

Since Kuwayama JP, Tsuji et al., Kuwayama et al. '158, Sekine et al., Dickson et al., Kuwayama et al. '691, and Sutherland et al. are not combinable and do not teach or suggest all of the limitations of claims 6-7 and 20-23, claims 6-7 and 20-23 are not obvious over the cited combination. Claims 8-19, 24-25, 46-53, and 58-59 depend, respectively, from independent claims 6-7, and are patentable at least for the reasons mentioned above, and on their own merits. Applicant respectfully requests that the 35 U.S.C. § 103(a) rejection of claims 6-25, 46-53, and 58-59 be withdrawn and the claims allowed.

Claims 6-25 and 46-59 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kuwayama JP, in view of Tsuji et al., Kuwayama et al. '158, and Sekine et al., Dickson et al., and/or Kuwayama et al. '691, and further in view of Watanabe et al. (US 2002/0003637). These rejections are respectfully traversed. As discussed above, none of Kuwayama JP, Tsuji et al., Kuwayama et al. '158, Sekine et al., Dickson et al., or Kuwayama et al. '691, even when considered in combination, teaches or suggests all of the limitations of independent claims 6-7 or 20-23.

Watanabe et al. is not cited for, nor does it teach, the above-discussed limitations. Therefore, Watanabe et al. fails to remedy the above-described deficiencies of Kuwayama JP, Tsuji et al., Kuwayama et al. '158, Sekine et al., Dickson et al., and Kuwayama et al. '691

Since Kuwayama JP, Tsuji et al., Kuwayama et al. '158, Sekine et al., Dickson et al., Kuwayama et al. '691, and Watanabe et al. are not combinable and do not teach or suggest all of the limitations of claims 6-7 and 20-23, claims 6-7 and 20-23 are not obvious over the cited combination. Claims 8-19, 24-25, and 46-59 depend, respectively, from independent claims 6-7, and are patentable at least for the reasons mentioned above, and on their own merits. Applicant respectfully requests that the 35 U.S.C. § 103(a) rejection of claims 6-25 and 46-59 be withdrawn and the claims allowed.

Claims 6-53 and 58-62 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kuwayama JP, in view of Tsuji et al., Kuwayama et al. '158, and Sekine et al., Dickson et al., and/or Kuwayama et al. '691, and further in view of Satoh et al. (US 4,224,480). These rejections are respectfully traversed. As discussed above, none of Kuwayama JP, Tsuji et al., Kuwayama et al. '158, Sekine et al., Dickson et al., or Kuwayama et al. '691, even when considered in combination, teaches or suggests all of the limitations of independent claims 6-7 or 20-23. Independent claim 26 recites similar limitations to those discussed above.

Satoh et al. is not cited for, nor does it teach, the above-discussed limitations. Therefore, Satoh et al. fails to remedy the above-described deficiencies of Kuwayama JP, Tsuji et al., Kuwayama et al. '158, Sekine et al., Dickson et al., and Kuwayama et al. '691

Since Kuwayama JP, Tsuji et al., Kuwayama et al. '158, Sekine et al., Dickson et al., Kuwayama et al. '691, and Satoh et al. are not combinable and do not teach or suggest all of the limitations of claims 6-7, 20-23 and 26, claims 6-7, 20-23, and 26 are not obvious over the cited combination. Claims 8-19, 24-25, 27-53, and 58-62 depend, respectively, from independent claims 6-7 and 26, and are patentable at least for the reasons mentioned above, and on their own merits. Applicant respectfully requests that the 35 U.S.C. § 103(a) rejection of claims 6-53 and 58-62 be withdrawn and the claims allowed.

In view of the above, Applicant believes the pending application is in condition for allowance.

Dated: November 11, 2008

Respectfully submitted,

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